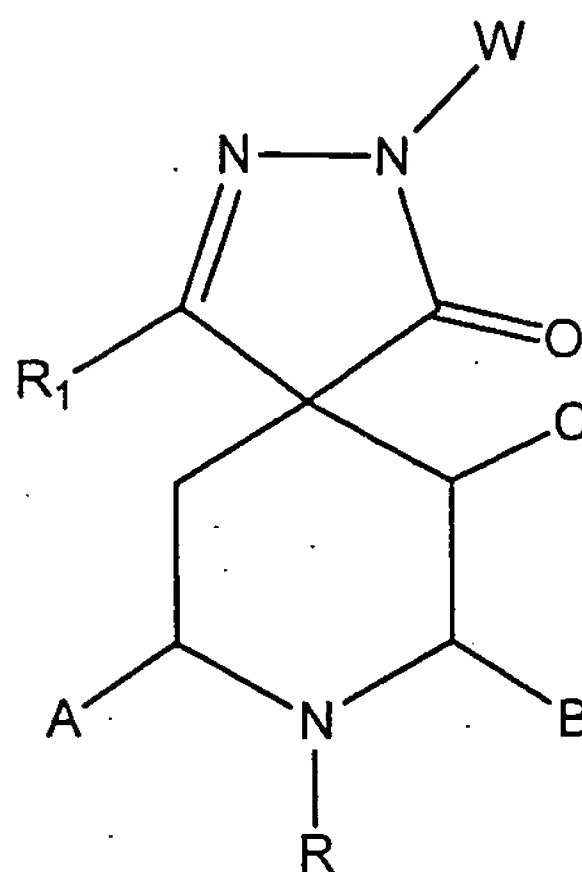


What is claimed is:

1. A process for preparing a compound of the formula (IV):



(IV)

wherein

W is hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl-, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy-, C<sub>1-10</sub> alkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl- substituted with 1-3 halogen, C<sub>1-10</sub> alkoxy substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkoxy- substituted with 1-3 halogen, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, -CH<sub>2</sub>OH, -SO<sub>2</sub>N(V<sub>1</sub>)<sub>2</sub>, hydroxyC<sub>1-10</sub>alkyl-, hydroxyC<sub>3-10</sub>cycloalkyl-, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, -CON(V<sub>1</sub>)<sub>2</sub>, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, sulfonylaminoC<sub>1-10</sub>alkyl-, diaminoalkyl-, -sulfonylC<sub>1-4</sub>alkyl, a 6-membered heterocyclic ring, a 6-membered heteroaromatic ring, a 6-membered heterocyclicC<sub>1-4</sub>alkyl-, a 6-membered heteroaromaticC<sub>1-4</sub>alkyl-, a 6-membered aromatic ring, a 6-membered aromaticC<sub>1-4</sub>alkyl-, a 5-membered heterocyclic ring optionally substituted with an oxo or thio, a 5-membered heteroaromatic ring, a 5-membered heterocyclicC<sub>1-4</sub>alkyl- optionally substituted with an oxo or thio, a 5-membered heteroaromaticC<sub>1-4</sub>alkyl-, -C<sub>1-5</sub>(=O)W<sub>1</sub>, -C<sub>1-5</sub>(=NH)W<sub>1</sub>, -C<sub>1-5</sub>NHC(=O)W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)<sub>2</sub>W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)W<sub>1</sub>, wherein W<sub>1</sub> is hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl,

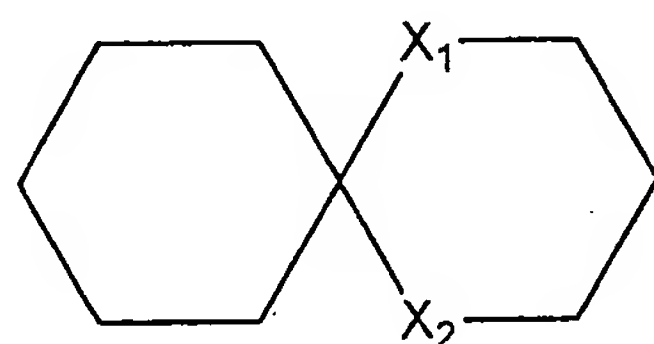
C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy, -CH<sub>2</sub>OH, amino, C<sub>1-4</sub>alkylamino-, diC<sub>1-4</sub>alkylamino-, or a 5-membered heteroaromatic ring optionally substituted with 1-3 lower alkyl;

wherein each V<sub>1</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl, benzyl and phenyl;

A, B and C are independently hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy, -CH<sub>2</sub>OH, -NHSO<sub>2</sub>, hydroxyC<sub>1-10</sub>alkyl-, aminocarbonyl-, C<sub>1-4</sub>alkylaminocarbonyl-, diC<sub>1-4</sub>alkylaminocarbonyl-, acylamino-, acylaminoalkyl-, amide, sulfonylaminoC<sub>1-10</sub>alkyl-, or A-B can together form a C<sub>2-6</sub> bridge, or B-C can together form a C<sub>3-7</sub> bridge, or A-C can together form a C<sub>1-5</sub> bridge;

R is -Z—R<sub>2</sub>; wherein Z is selected from the group consisting of a bond, straight or branched C<sub>1-6</sub> alkylene, -NH-, -CH<sub>2</sub>O-, -CH<sub>2</sub>NH-, -CH<sub>2</sub>N(CH<sub>3</sub>)-, -NHCH<sub>2</sub>-, -CH<sub>2</sub>CONH-, -NHCH<sub>2</sub>CO-, -CH<sub>2</sub>CO-, -COCH<sub>2</sub>-, -CH<sub>2</sub>COCH<sub>2</sub>-, -CH(CH<sub>3</sub>)-, -CH=, -O- and -HC=CH-, wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

R<sub>2</sub> is selected from the group consisting of hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub>cycloalkyl, C<sub>2-10</sub>alkenyl, amino, C<sub>1-10</sub>alkylamino-, C<sub>3-12</sub>cycloalkylamino-, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, cyano, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, NH<sub>2</sub>SO<sub>2</sub>-, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, aminocarbonyl-, C<sub>1-4</sub>alkylaminocarbonyl-, diC<sub>1-4</sub>alkylaminocarbonyl-, benzyl, C<sub>3-12</sub> cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a heteromonocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



(V)

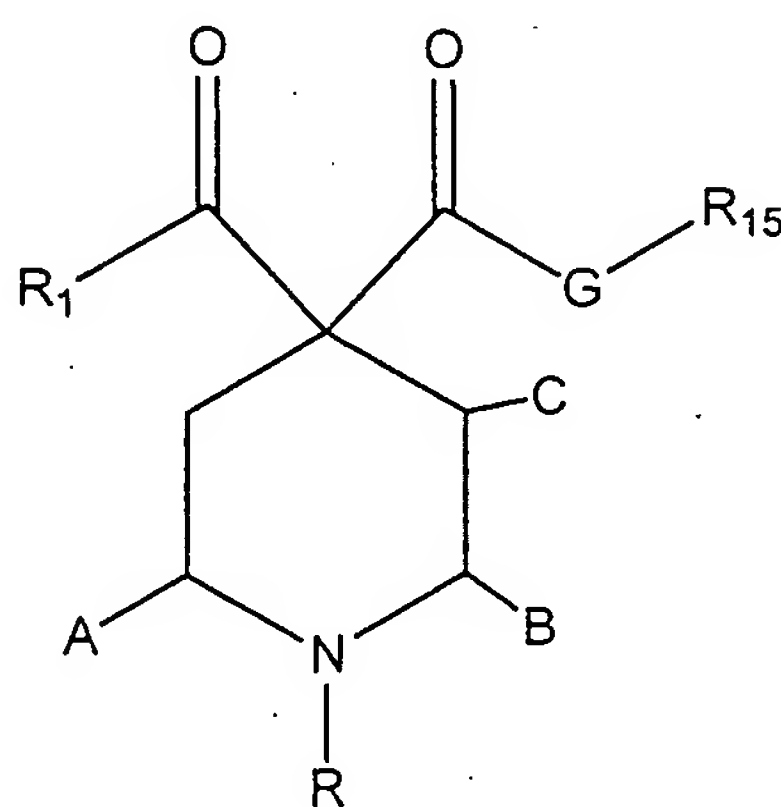
wherein X<sub>1</sub> and X<sub>2</sub> are independently selected from the group consisting of NH, O, S and CH<sub>2</sub>; and wherein said alkyl, cycloalkyl, alkenyl, C<sub>1-10</sub>alkylamino-, C<sub>3-12</sub>cycloalkylamino-, or benzyl of R<sub>1</sub> is optionally substituted with 1-3 substituents

selected from the group consisting of halogen, hydroxy, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, nitro, trifluoromethyl-, cyano, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, cyanoC<sub>1-10</sub>alkyl-, -C<sub>1-5</sub>(=O)W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)<sub>2</sub>W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)W<sub>1</sub>, a 5-membered heteroaromaticC<sub>0-4</sub>alkyl-, phenyl, benzyl, benzyloxy, said phenyl, benzyl, and benzyloxy optionally being substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl-, C<sub>1-10</sub> alkoxy-, and cyano; and wherein said C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub> cycloalkenyl, monocyclic, bicyclic or tricyclic aryl, heteroaryl ring, hetero-monocyclic ring, hetero-bicyclic ring system, or spiro ring system of the formula (V) is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, nitro, trifluoromethyl-, phenyl, benzyl, phenyloxy and benzyloxy, wherein said phenyl, benzyl, phenyloxy or benzyloxy is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, and cyano;

R<sub>1</sub> is selected from the group consisting of C<sub>1-8</sub> alkyl, 5-8 membered cycloalkyl, 5-8 membered heterocyclic or a 6 membered aromatic or heteroaromatic group; and R<sub>1</sub> being substituted with (D)<sub>n</sub>, wherein n is an integer from 0 to 3, and wherein D is selected from the group consisting of hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl and halogen, said alkyl or cycloalkyl optionally substituted with an oxo, amino, alkylamino or dialkylamino group;

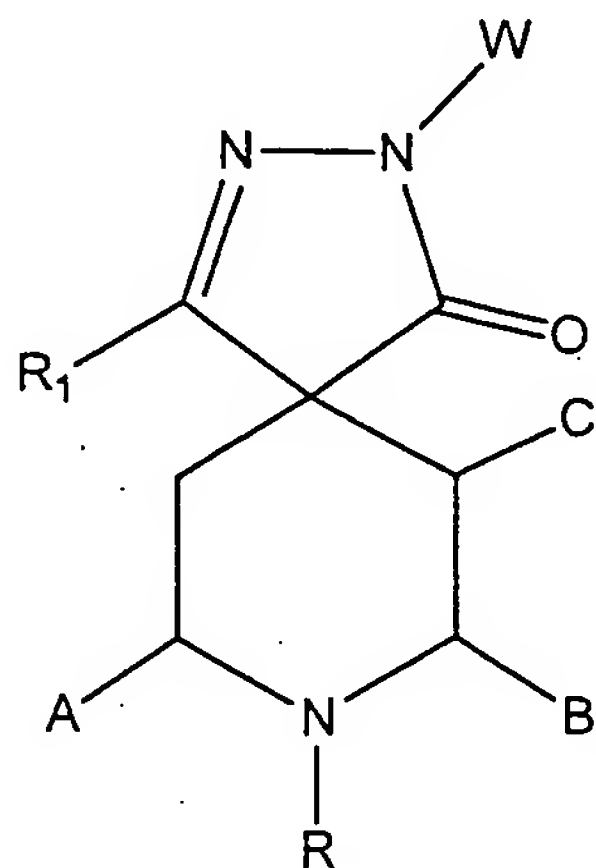
said process comprising:

providing a compound of the formula (III)



(III)

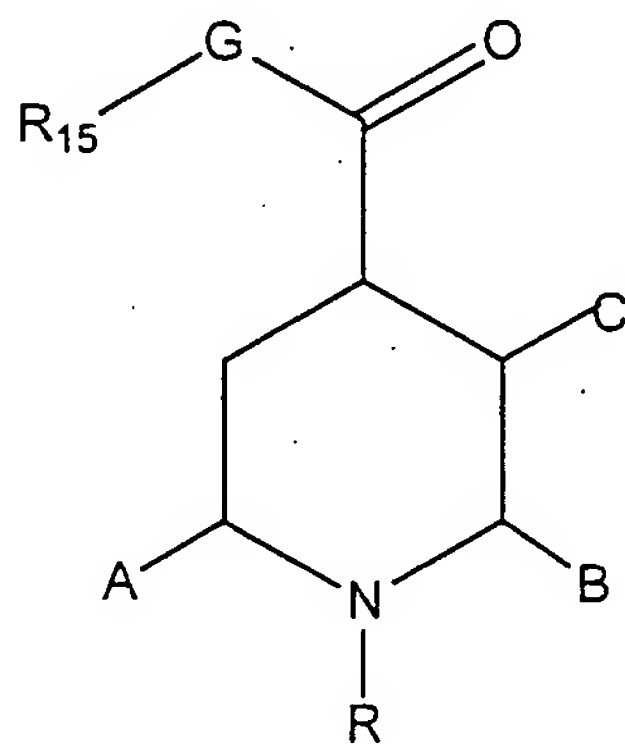
wherein A, B, C, R, and R<sub>1</sub> are as disclosed above, G is O or S and R<sub>15</sub> is selected from straight chained or branched C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub>cycloalkylC<sub>1-10</sub>alkyl, aryl, heteroaryl, arylC<sub>1-10</sub>alkyl or heteroarylC<sub>1-10</sub>alkyl;  
and reacting said compound of formula (III) with hydrazine, hydrates thereof, substituted hydrazine, or hydrates thereof, under conditions effective to form the compound of formula (IV):



(IV)

wherein A, B, C, R, R<sub>1</sub> and W are as disclosed above.

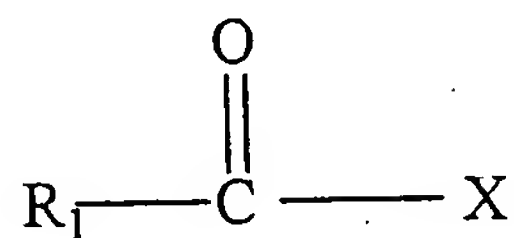
2. The process of claim 1, further comprising forming the compound of formula (III) by providing a compound of the formula (II):



(II)

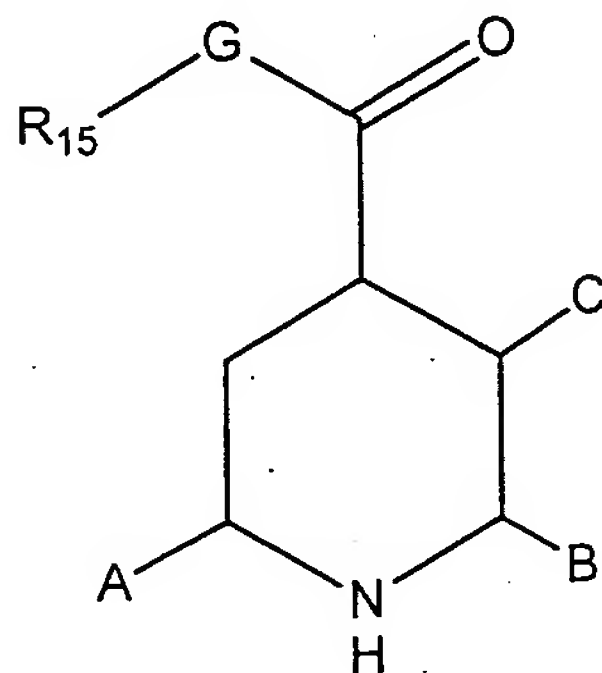
wherein A, B, C, R, G and R<sub>15</sub> are as disclosed above;

and acylating said compound of formula (II) by reacting said compound of formula (II) with a compound having the formula

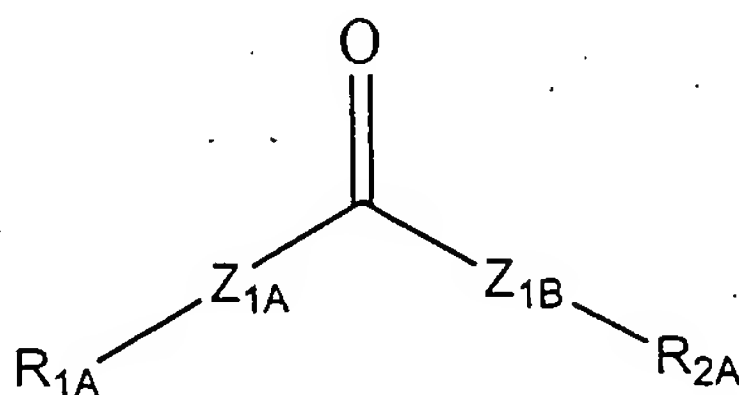


wherein R<sub>1</sub> is as disclosed above, and X is a halogen; under conditions effective to produce a compound of the formula (III).

3. The process of claim 2, further comprising forming the compound of formula (II) by providing a compound of formula (I):

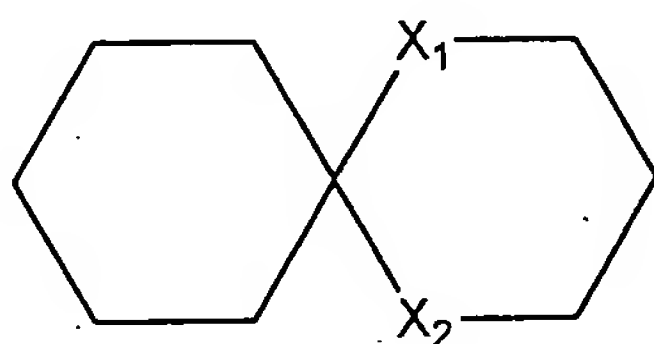


wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting the compound of formula (I) with a compound having the formula:



wherein  $Z_{1A}$  and  $Z_{1B}$  are the same or different and are independently selected from the group consisting of a bond, straight or branched  $C_{1-6}$  alkylene,  $-NH-$ ,  $-CH_2O-$ ,  $-CH_2NH-$ ,  $-CH_2N(CH_3)-$ ,  $-NHCH_2-$ ,  $-CH_2CONH-$ ,  $-NHCH_2CO-$ ,  $-CH_2CO-$ ,  $-COCH_2-$ ,  $-CH_2COCH_2-$ ,  $-CH(CH_3)-$ ,  $-CH=$ ,  $-O-$  and  $-HC=CH-$ , wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

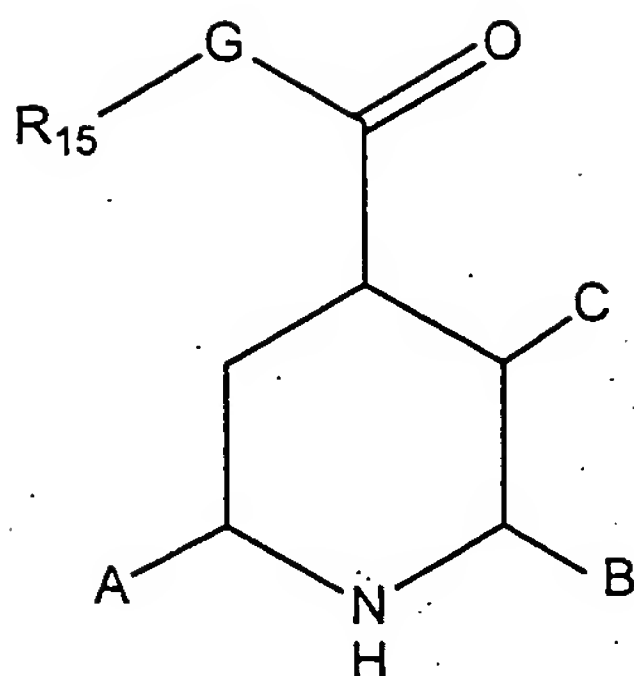
$R_{1A}$  and  $R_{2A}$  are the same or different and are independently selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{2-10}$  alkenyl, amino,  $C_{1-10}$  alkylamino-,  $C_{3-12}$  cycloalkylamino-,  $-COOV_1$ ,  $-C_{1-4}COOV_1$ , cyano, cyano $C_{1-10}$  alkyl-, cyano $C_{3-10}$  cycloalkyl-,  $NH_2SO_2-$ ,  $NH_2SO_2C_{1-4}$  alkyl-,  $NH_2SOC_{1-4}$  alkyl-, aminocarbonyl-,  $C_{1-4}$  alkylaminocarbonyl-, di $C_{1-4}$  alkylaminocarbonyl-, benzyl,  $C_{3-12}$  cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a hetero-monocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



(V)

wherein  $X_1$  and  $X_2$  are as disclosed above;  
under conditions effective to produce the compound of formula (II).

4. The process of claim 2, further comprising forming the compound of formula (II) by providing a compound of formula (I):

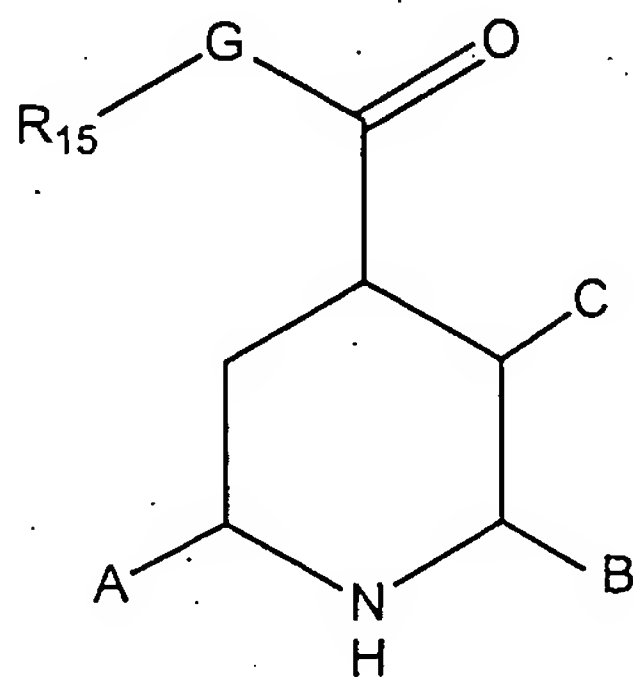


wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:

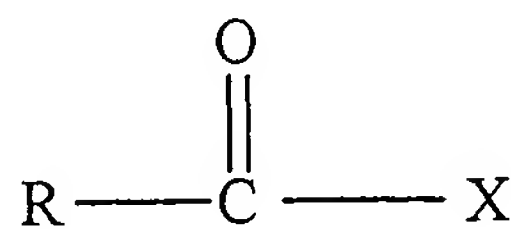


wherein R is as disclosed above and X is a halogen;  
under conditions effective to produce a compound of the formula (II).

5. The process of claim 2, further comprising forming the compound of formula (II) by providing a compound of formula (I):

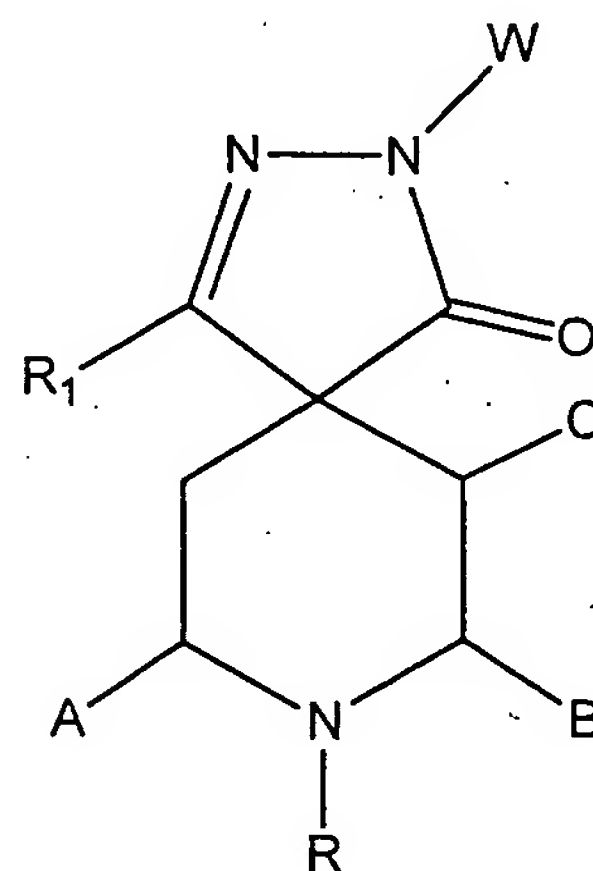


wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:



wherein R is as disclosed above and X is a halogen;  
under conditions effective to produce a compound of the formula (II).

6. A process for preparing a compound of the formula (IV):



(IV)

wherein

W is hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl-, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy-, C<sub>1-10</sub> alkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl- substituted with 1-3 halogen, C<sub>1-10</sub> alkoxy substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkoxy- substituted with 1-3 halogen, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, -CH<sub>2</sub>OH, -SO<sub>2</sub>N(V<sub>1</sub>)<sub>2</sub>, hydroxyC<sub>1-10</sub>alkyl-, hydroxyC<sub>3-10</sub>cycloalkyl-, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, -CON(V<sub>1</sub>)<sub>2</sub>, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, sulfonylaminoC<sub>1-10</sub>alkyl-, diaminoalkyl-, -sulfonylC<sub>1-4</sub>alkyl, a 6-membered heterocyclic ring, a 6-membered heteroaromatic ring, a 6-membered heterocyclicC<sub>1-4</sub>alkyl-, a 6-membered heteroaromaticC<sub>1-4</sub>alkyl-, a 6-membered aromatic ring, a 6-membered aromaticC<sub>1-4</sub>alkyl-, a 5-membered heterocyclic ring optionally substituted with an oxo or thio, a 5-membered heteroaromatic ring, a 5-membered heterocyclicC<sub>1-4</sub>alkyl- optionally substituted with an oxo or thio, a 5-membered heteroaromaticC<sub>1-4</sub>alkyl-, -C<sub>1-5</sub>(=O)W<sub>1</sub>, -C<sub>1-5</sub>(=NH)W<sub>1</sub>, -C<sub>1-5</sub>NHC(=O)W<sub>1</sub>, -C<sub>1-</sub>



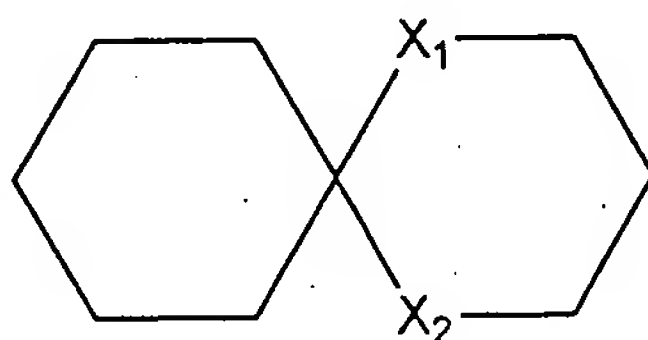
$_5\text{NHS}(=\text{O})_2\text{W}_1$ ,  $-\text{C}_{1-5}\text{NHS}(=\text{O})\text{W}_1$ , wherein  $\text{W}_1$  is hydrogen,  $\text{C}_{1-10}$  alkyl,  $\text{C}_{3-12}$  cycloalkyl,  $\text{C}_{1-10}$  alkoxy,  $\text{C}_{3-12}$  cycloalkoxy,  $-\text{CH}_2\text{OH}$ , amino,  $\text{C}_{1-4}$  alkylamino-,  $\text{diC}_{1-4}$  alkylamino-, or a 5-membered heteroaromatic ring optionally substituted with 1-3 lower alkyl;

wherein each  $\text{V}_1$  is independently selected from H,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{3-6}$  cycloalkyl, benzyl and phenyl;

A, B and C are independently hydrogen,  $\text{C}_{1-10}$  alkyl,  $\text{C}_{3-12}$  cycloalkyl,  $\text{C}_{1-10}$  alkoxy,  $\text{C}_{3-12}$  cycloalkoxy,  $-\text{CH}_2\text{OH}$ ,  $-\text{NH}\text{SO}_2$ ,  $\text{hydroxyC}_{1-10}\text{alkyl-}$ ,  $\text{aminocarbonyl-}$ ,  $\text{C}_{1-4}\text{alkylaminocarbonyl-}$ ,  $\text{diC}_{1-4}\text{alkylaminocarbonyl-}$ ,  $\text{acylamino-}$ ,  $\text{acylaminoalkyl-}$ ,  $\text{amide}$ ,  $\text{sulfonylaminoC}_{1-10}\text{alkyl-}$ , or A-B can together form a  $\text{C}_{2-6}$  bridge, or B-C can together form a  $\text{C}_{3-7}$  bridge, or A-C can together form a  $\text{C}_{1-5}$  bridge;

R is  $-\text{Z}-\text{R}_2$ ; wherein Z is selected from the group consisting of a bond, straight or branched  $\text{C}_{1-6}$  alkylene,  $-\text{NH-}$ ,  $-\text{CH}_2\text{O-}$ ,  $-\text{CH}_2\text{NH-}$ ,  $-\text{CH}_2\text{N}(\text{CH}_3)-$ ,  $-\text{NHCH}_2-$ ,  $-\text{CH}_2\text{CONH-}$ ,  $-\text{NHCH}_2\text{CO-}$ ,  $-\text{CH}_2\text{CO-}$ ,  $-\text{COCH}_2-$ ,  $-\text{CH}_2\text{COCH}_2-$ ,  $-\text{CH}(\text{CH}_3)-$ ,  $-\text{CH=}$ ,  $-\text{O-}$  and  $-\text{HC=CH-}$ , wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group; and wherein R is not an unsubstituted benzyl when G is O and  $\text{R}_{15}$  is ethyl;

$\text{R}_2$  is selected from the group consisting of hydrogen,  $\text{C}_{1-10}$  alkyl,  $\text{C}_{3-12}$  cycloalkyl,  $\text{C}_{2-10}$  alkenyl, amino,  $\text{C}_{1-10}$  alkylamino-,  $\text{C}_{3-12}$  cycloalkylamino-,  $-\text{COOV}_1$ ,  $-\text{C}_{1-4}\text{COOV}_1$ , cyano,  $\text{cyanoC}_{1-10}\text{alkyl-}$ ,  $\text{cyanoC}_{3-10}\text{cycloalkyl-}$ ,  $\text{NH}_2\text{SO}_2-$ ,  $\text{NH}_2\text{SO}_2\text{C}_{1-4}\text{alkyl-}$ ,  $\text{NH}_2\text{SOC}_{1-4}\text{alkyl-}$ ,  $\text{aminocarbonyl-}$ ,  $\text{C}_{1-4}\text{alkylaminocarbonyl-}$ ,  $\text{diC}_{1-4}\text{alkylaminocarbonyl-}$ , benzyl,  $\text{C}_{3-12}$  cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a heteromonocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



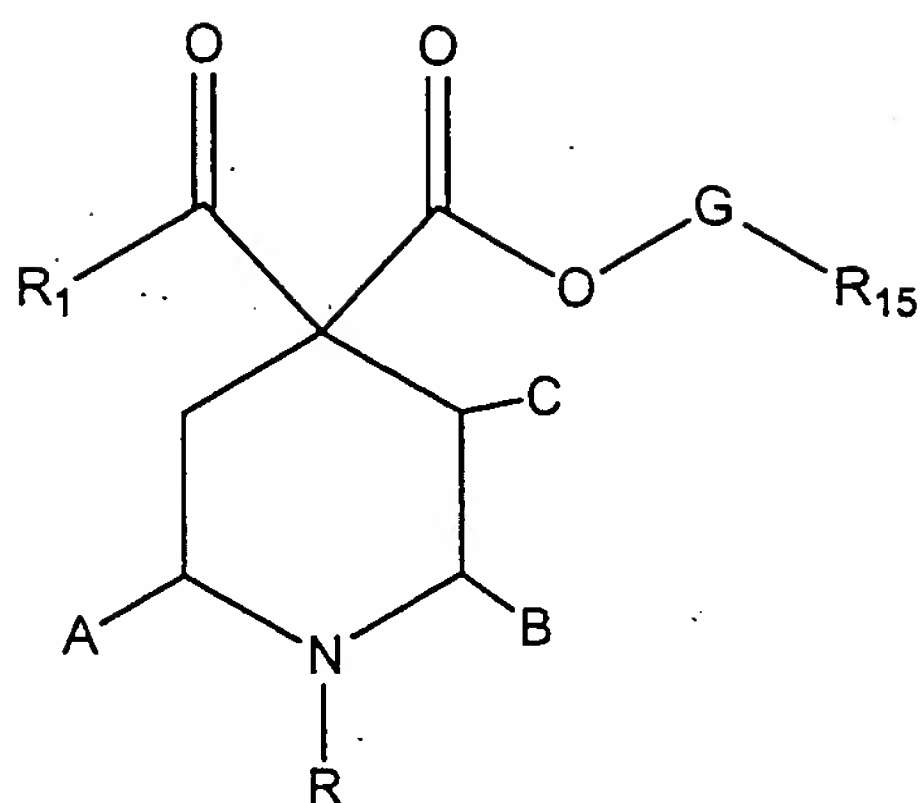
(V)

wherein  $X_1$  and  $X_2$  are independently selected from the group consisting of NH, O, S and  $CH_2$ ; and wherein said alkyl, cycloalkyl, alkenyl,  $C_{1-10}$ alkylamino-,  $C_{3-12}$ cycloalkylamino-, or benzyl of  $R_1$  is optionally substituted with 1-3 substituents selected from the group consisting of halogen, hydroxy,  $C_{1-10}$  alkyl,  $C_{1-10}$  alkoxy, nitro, trifluoromethyl-, cyano,  $-COOV_1$ ,  $-C_{1-4}COOV_1$ , cyano $C_{1-10}$ alkyl-,  $-C_{1-5}(=O)W_1$ ,  $-C_{1-5}NHS(=O)_2W_1$ ,  $-C_{1-5}NHS(=O)W_1$ , a 5-membered heteroaromatic $C_{0-4}$ alkyl-, phenyl, benzyl, benzyloxy, said phenyl, benzyl, and benzyloxy optionally being substituted with 1-3 substituents selected from the group consisting of halogen,  $C_{1-10}$  alkyl-,  $C_{1-10}$  alkoxy-, and cyano; and wherein said  $C_{3-12}$  cycloalkyl,  $C_{3-12}$  cycloalkenyl, monocyclic, bicyclic or tricyclic aryl, heteroaryl ring, hetero-monocyclic ring, hetero-bicyclic ring system, or spiro ring system of the formula (V) is optionally substituted with 1-3 substituents selected from the group consisting of halogen,  $C_{1-10}$  alkyl,  $C_{1-10}$  alkoxy, nitro, trifluoromethyl-, phenyl, benzyl, phenyloxy and benzyloxy, wherein said phenyl, benzyl, phenyloxy or benzyloxy is optionally substituted with 1-3 substituents selected from the group consisting of halogen,  $C_{1-10}$  alkyl,  $C_{1-10}$  alkoxy, and cyano;

$R_1$  is selected from the group consisting of  $C_{1-8}$  alkyl, 5-8 membered cycloalkyl, 5-8 membered heterocyclic or a 6 membered aromatic or heteroaromatic group; and  $R_1$  being substituted with  $(D)_n$ , wherein  $n$  is an integer from 0 to 3, and wherein  $D$  is selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{3-12}$  cycloalkyl and halogen, said alkyl or cycloalkyl optionally substituted with an oxo, amino, alkylamino or dialkylamino group;

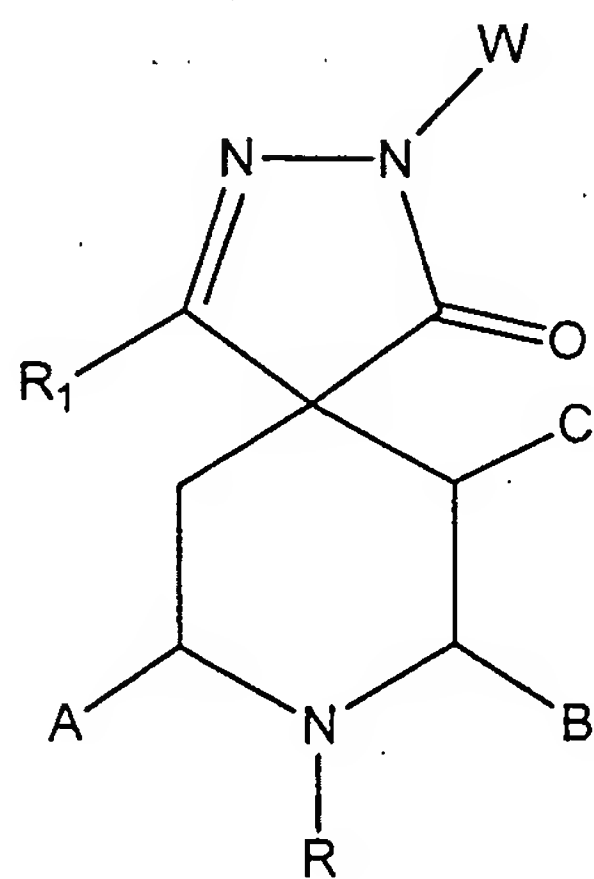
said process comprising:

providing a compound of the formula (III)



(III)

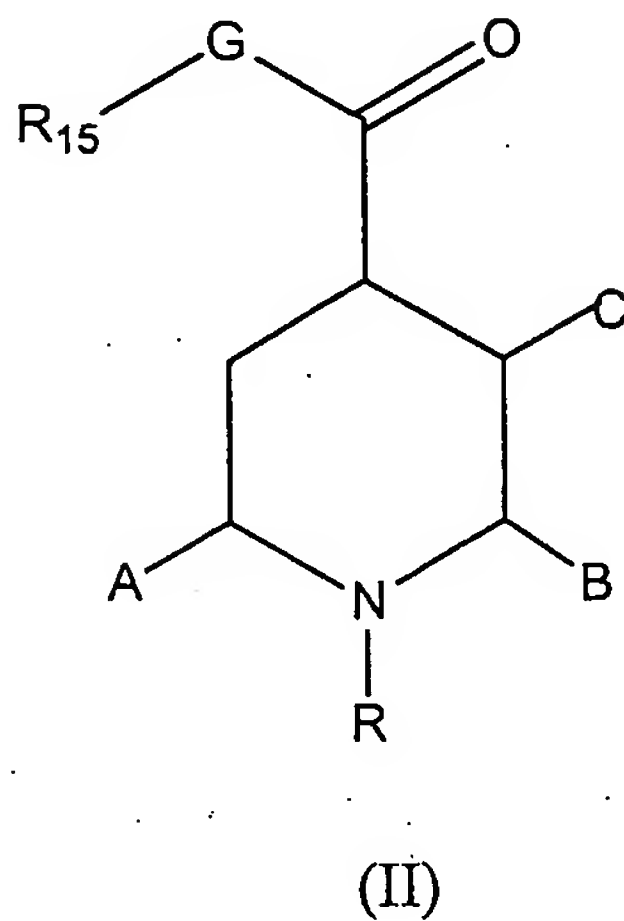
wherein A, B, C, R, and R<sub>1</sub> are as disclosed above, G is O or S and R<sub>15</sub> is selected from straight chained or branched C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub>cycloalkylC<sub>1-10</sub>alkyl, aryl, heteroaryl, arylC<sub>1-10</sub>alkyl or heteroarylC<sub>1-10</sub>alkyl;  
and reacting said compound of formula (III) with hydrazine, hydrates thereof, substituted hydrazine, or hydrates thereof, under conditions effective to form the compound of formula (IV):



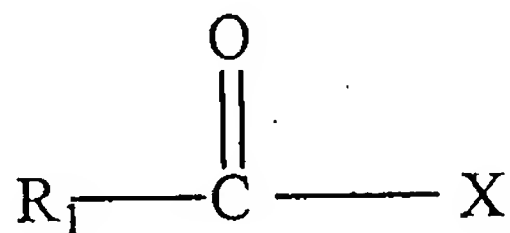
(IV)

wherein A, B, C, R, R<sub>1</sub> and W are as disclosed above.

7. The process of claim 6, further comprising forming the compound of formula (III) by providing a compound of the formula (II):

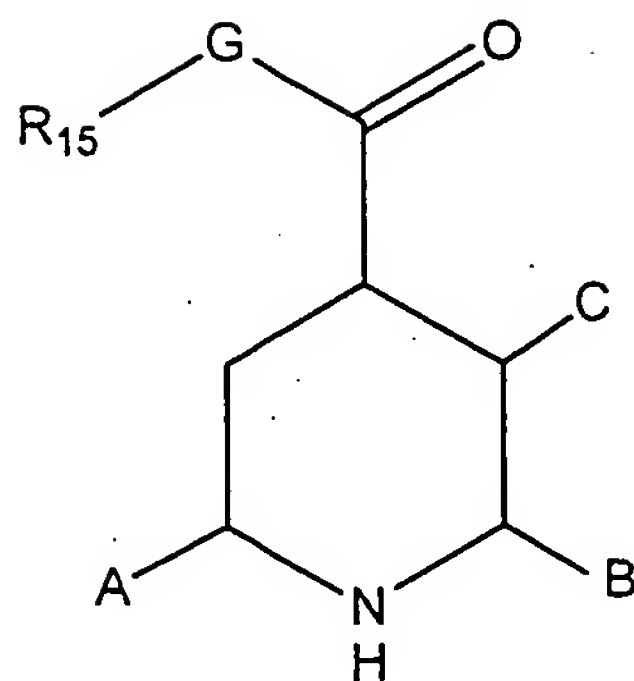


wherein A, B, C, R, G and R<sub>15</sub> are as disclosed above;  
and acylating said compound of formula (II) by reacting said compound of formula (II) with a compound having the formula



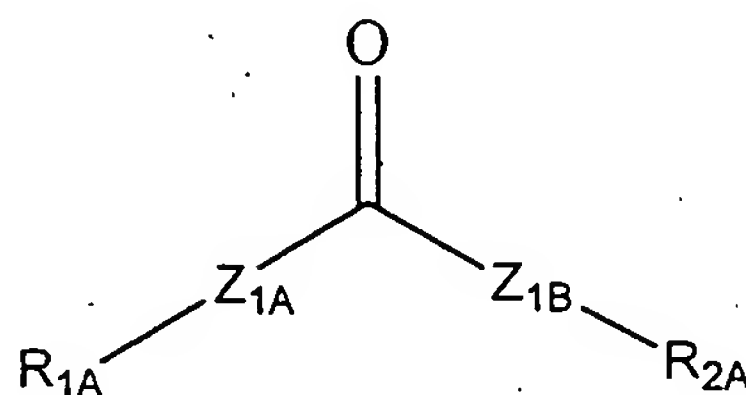
wherein R<sub>1</sub> is as disclosed above, and X is a halogen; under conditions effective to produce a compound of the formula (III).

8. The process of claim 7, further comprising forming the compound of formula (II) by providing a compound of formula (I):



(I)

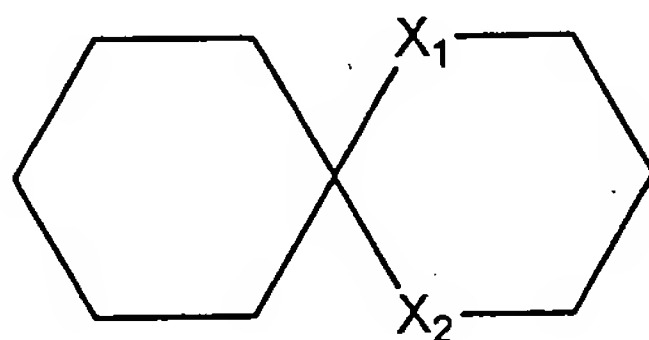
wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting the compound of formula (I) with a compound having the formula:



wherein Z<sub>1A</sub> and Z<sub>1B</sub> are the same or different and are independently selected from the group consisting of a bond, straight or branched C<sub>1-6</sub> alkylene, -NH-, -CH<sub>2</sub>O-, -CH<sub>2</sub>NH-, -CH<sub>2</sub>N(CH<sub>3</sub>)-, -NHCH<sub>2</sub>-, -CH<sub>2</sub>CONH-, -NHCH<sub>2</sub>CO-, -CH<sub>2</sub>CO-, -COCH<sub>2</sub>-, -CH<sub>2</sub>COCH<sub>2</sub>-, -CH(CH<sub>3</sub>)-, -CH=, -O- and -HC=CH-, wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

R<sub>1A</sub> and R<sub>2A</sub> are the same or different and are independently selected from the group consisting of hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub>cycloalkyl, C<sub>2-10</sub>alkenyl, amino, C<sub>1-10</sub>alkylamino-, C<sub>3-12</sub>cycloalkylamino-, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, cyano, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, NH<sub>2</sub>SO<sub>2</sub>-, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, aminocarbonyl-, C<sub>1-4</sub>alkylaminocarbonyl-, diC<sub>1-4</sub>alkylaminocarbonyl-, benzyl, C<sub>3-12</sub> cycloalkenyl-, a

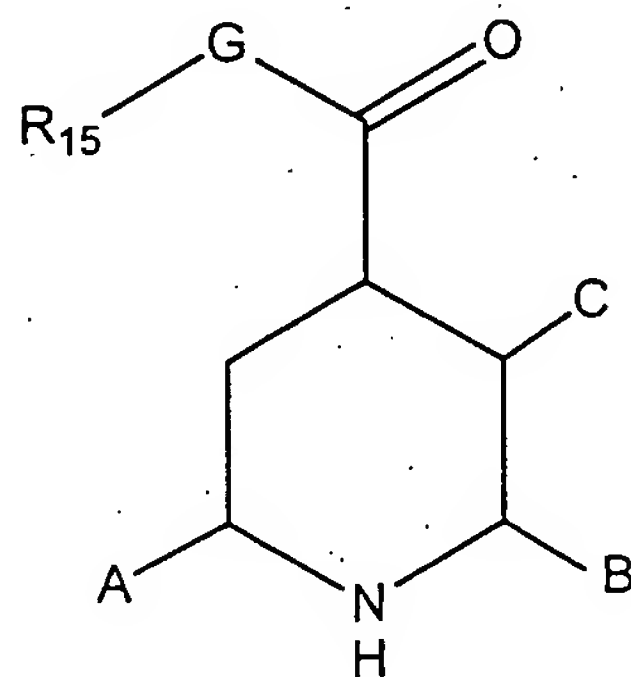
monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a hetero-monocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



(V)

wherein  $X_1$  and  $X_2$  are as disclosed above; under conditions effective to produce the compound of formula (II).

9. The process of claim 7, further comprising forming the compound of formula (II) by providing a compound of formula (I):



(I)

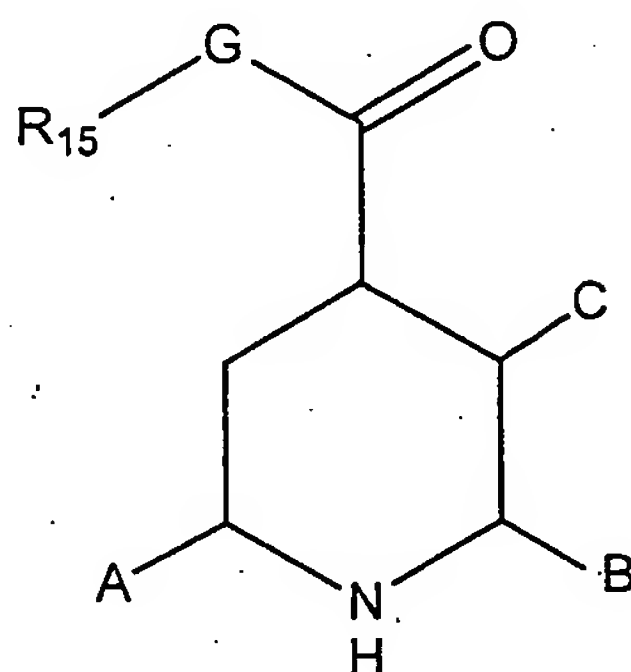
wherein A, B, C, G and  $R_{15}$  are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:



wherein R is as disclosed above and X is a halogen;

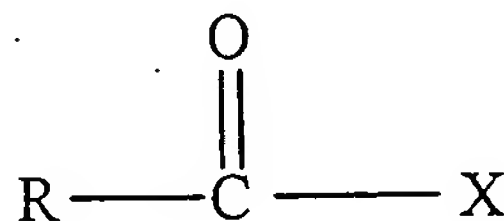
under conditions effective to produce a compound of the formula (II).

10. The process of claim 7, further comprising forming the compound of formula (II) by providing a compound of formula (I):



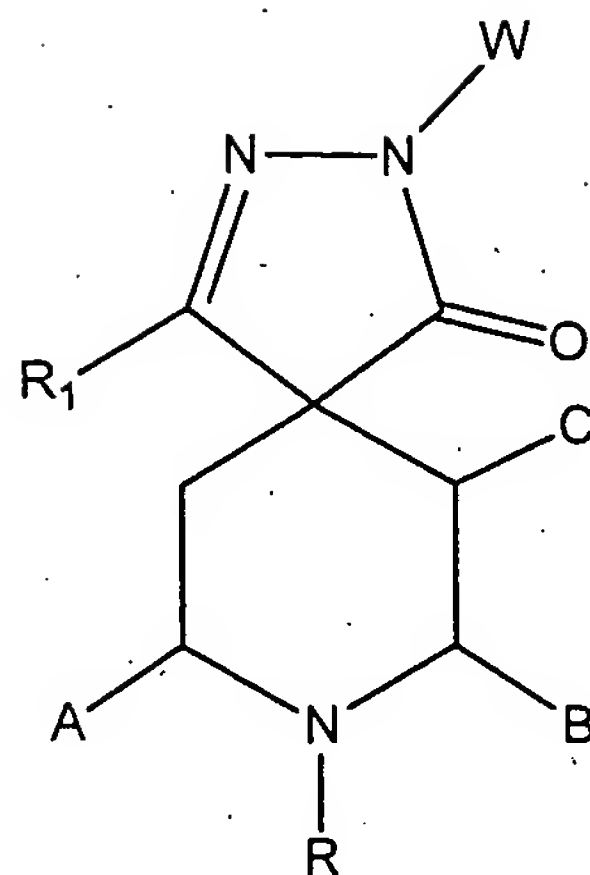
(I)

wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:



wherein R is as disclosed above and X is a halogen;  
under conditions effective to produce a compound of the formula (II).

11. A process for preparing a compound of the formula (IV):



(IV)

wherein

W is hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl-, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy-, C<sub>1-10</sub> alkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkyl substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkylC<sub>1-4</sub>alkyl- substituted with 1-3 halogen, C<sub>1-10</sub> alkoxy substituted with 1-3 halogen, C<sub>3-12</sub> cycloalkoxy- substituted with 1-3 halogen, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, -CH<sub>2</sub>OH, -SO<sub>2</sub>N(V<sub>1</sub>)<sub>2</sub>, hydroxyC<sub>1-10</sub>alkyl-, hydroxyC<sub>3-10</sub>cycloalkyl-, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, -CON(V<sub>1</sub>)<sub>2</sub>, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, sulfonylaminoC<sub>1-10</sub>alkyl-, diaminoalkyl-, -sulfonylC<sub>1-4</sub>alkyl, a 6-membered heterocyclic ring, a 6-membered heteroaromatic ring, a 6-membered heterocyclicC<sub>1-4</sub>alkyl-, a 6-membered heteroaromaticC<sub>1-4</sub>alkyl-, a 6-membered aromatic ring, a 6-membered aromaticC<sub>1-4</sub>alkyl-, a 5-membered heterocyclic ring optionally substituted with an oxo or thio, a 5-membered heteroaromatic ring, a 5-membered heterocyclicC<sub>1-4</sub>alkyl- optionally substituted with an oxo or thio, a 5-membered heteroaromaticC<sub>1-4</sub>alkyl-, -C<sub>1-5</sub>(=O)W<sub>1</sub>, -C<sub>1-5</sub>(=NH)W<sub>1</sub>, -C<sub>1-5</sub>NHC(=O)W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)<sub>2</sub>W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)W<sub>1</sub>, wherein W<sub>1</sub> is hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy, -CH<sub>2</sub>OH, amino, C<sub>1-4</sub>alkylamino-, diC<sub>1-4</sub>alkylamino-, or a 5-membered heteroaromatic ring optionally substituted with 1-3 lower alkyl;

wherein each V<sub>1</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl, benzyl and phenyl;

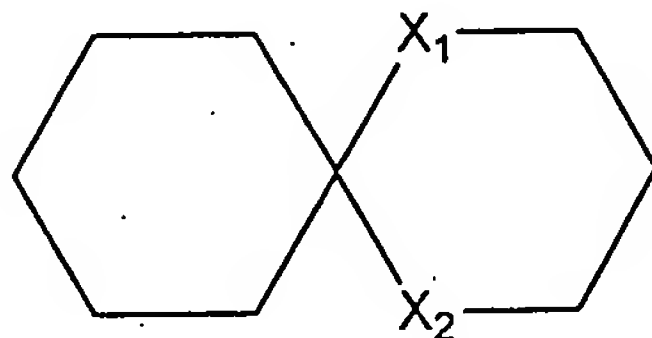
A, B and C are independently hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-10</sub> alkoxy, C<sub>3-12</sub> cycloalkoxy, -CH<sub>2</sub>OH, -NHSO<sub>2</sub>, hydroxyC<sub>1-10</sub>alkyl-, aminocarbonyl-, C<sub>1-</sub>



<sub>4</sub>alkylaminocarbonyl-, diC<sub>1-4</sub>alkylaminocarbonyl-, acylamino-, acylaminoalkyl-, amide, sulfonylaminoC<sub>1-10</sub>alkyl-, or A-B can together form a C<sub>2-6</sub> bridge, or B-C can together form a C<sub>3-7</sub> bridge, or A-C can together form a C<sub>1-5</sub> bridge;

R is -Z—R<sub>2</sub>; wherein Z is selected from the group consisting of a bond, straight or branched C<sub>1-6</sub> alkylene, -NH-, -CH<sub>2</sub>O-, -CH<sub>2</sub>NH-, -CH<sub>2</sub>N(CH<sub>3</sub>)-, -NHCH<sub>2</sub>-, -CH<sub>2</sub>CONH-, -NHCH<sub>2</sub>CO-, -CH<sub>2</sub>CO-, -COCH<sub>2</sub>-, -CH<sub>2</sub>COCH<sub>2</sub>-, -CH(CH<sub>3</sub>)-, -CH=, -O- and -HC=CH-, wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

R<sub>2</sub> is selected from the group consisting of hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub>cycloalkyl, C<sub>2-10</sub>alkenyl, amino, C<sub>1-10</sub>alkylamino-, C<sub>3-12</sub>cycloalkylamino-, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, cyano, cyanoC<sub>1-10</sub>alkyl-, cyanoC<sub>3-10</sub>cycloalkyl-, NH<sub>2</sub>SO<sub>2</sub>-, NH<sub>2</sub>SO<sub>2</sub>C<sub>1-4</sub>alkyl-, NH<sub>2</sub>SOC<sub>1-4</sub>alkyl-, aminocarbonyl-, C<sub>1-4</sub>alkylaminocarbonyl-, diC<sub>1-4</sub>alkylaminocarbonyl-, benzyl, C<sub>3-12</sub> cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a heteromonocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



(V)

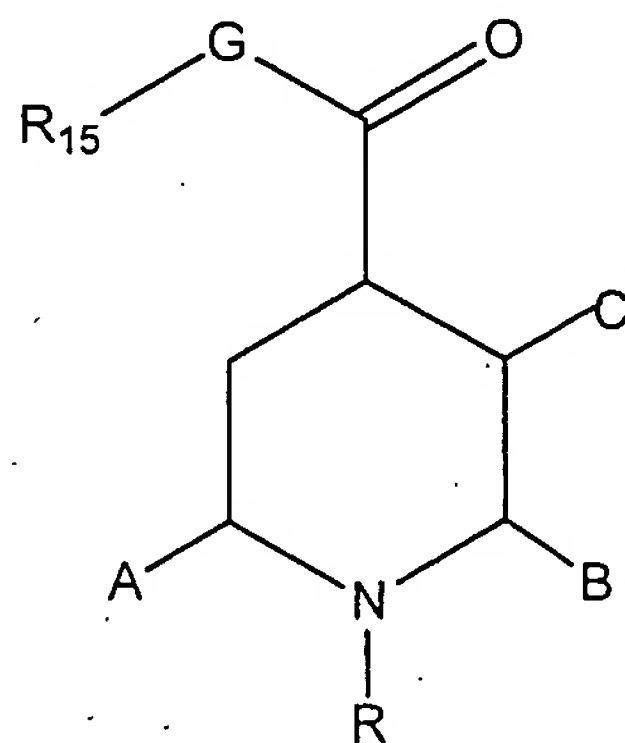
wherein X<sub>1</sub> and X<sub>2</sub> are independently selected from the group consisting of NH, O, S and CH<sub>2</sub>; and wherein said alkyl, cycloalkyl, alkenyl, C<sub>1-10</sub>alkylamino-, C<sub>3-12</sub>cycloalkylamino-, or benzyl of R<sub>1</sub> is optionally substituted with 1-3 substituents selected from the group consisting of halogen, hydroxy, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, nitro, trifluoromethyl-, cyano, -COOV<sub>1</sub>, -C<sub>1-4</sub>COOV<sub>1</sub>, cyanoC<sub>1-10</sub>alkyl-, -C<sub>1-5</sub>(=O)W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)<sub>2</sub>W<sub>1</sub>, -C<sub>1-5</sub>NHS(=O)W<sub>1</sub>, a 5-membered heteroaromaticC<sub>0-4</sub>alkyl-, phenyl, benzyl, benzyloxy, said phenyl, benzyl, and benzyloxy optionally being substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl-, C<sub>1-10</sub> alkoxy-, and cyano; and wherein said C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub> cycloalkenyl, monocyclic, bicyclic or

tricyclic aryl, heteroaryl ring, hetero-monocyclic ring, hetero-bicyclic ring system, or spiro ring system of the formula (V) is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, nitro, trifluoromethyl-, phenyl, benzyl, phenyloxy and benzyloxy, wherein said phenyl, benzyl, phenyloxy or benzyloxy is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, and cyano;

R<sub>1</sub> is selected from the group consisting of C<sub>1-8</sub> alkyl, 5-8 membered cycloalkyl, 5-8 membered heterocyclic or a 6 membered aromatic or heteroaromatic group; and R<sub>1</sub> being substituted with (D)<sub>n</sub>, wherein n is an integer from 0 to 3, and wherein D is selected from the group consisting of hydrogen, C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl and halogen, said alkyl or cycloalkyl optionally substituted with an oxo, amino, alkylamino or dialkylamino group;

said process comprising:

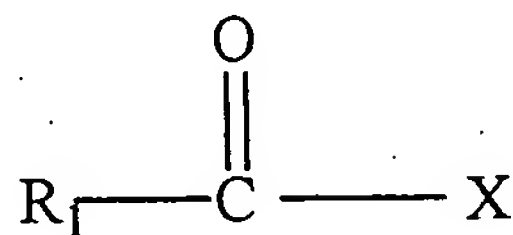
providing a compound of formula (II)



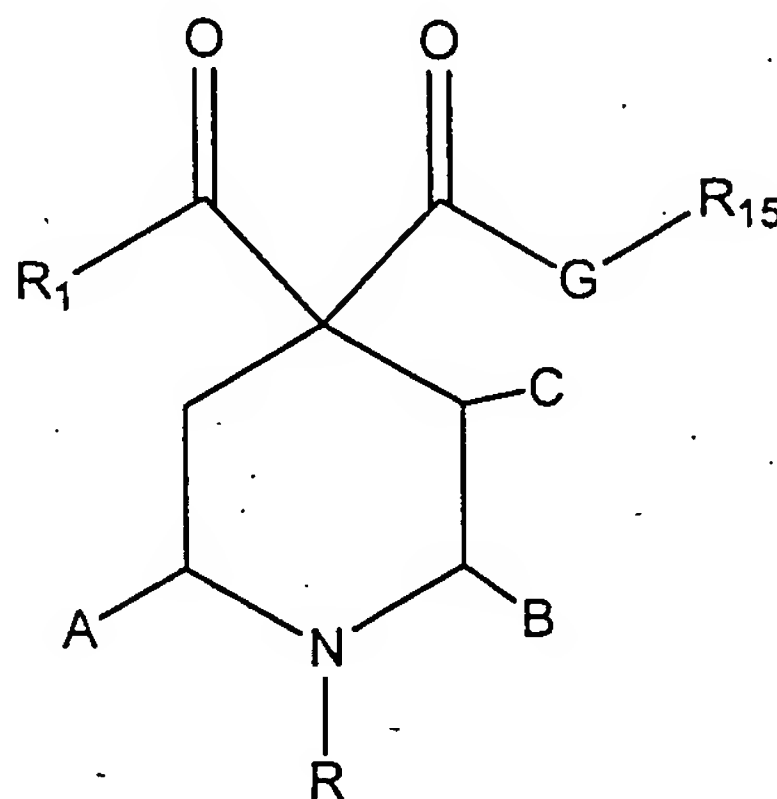
(II)

wherein A, B, C, and R are as disclosed above, G is O or S and R<sub>15</sub> is selected from straight chained or branched C<sub>1-10</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>3-12</sub>cycloalkylC<sub>1-10</sub>alkyl, aryl, heteroaryl, arylC<sub>1-10</sub>alkyl or heteroarylC<sub>1-10</sub>alkyl;

and acylating said compound of formula (II) by reacting said compound of formula (II) with a compound other than benzoyl chloride when G is O and R<sub>15</sub> is ethyl having the formula

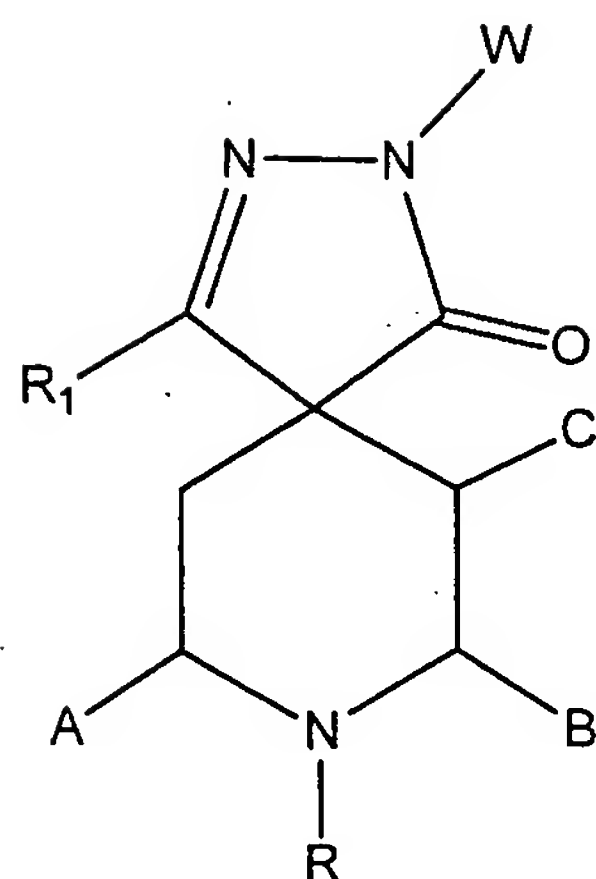


wherein R<sub>1</sub> is as disclosed above, and X is a halogen;  
under conditions effective to produce a compound of the formula (III):



(III)

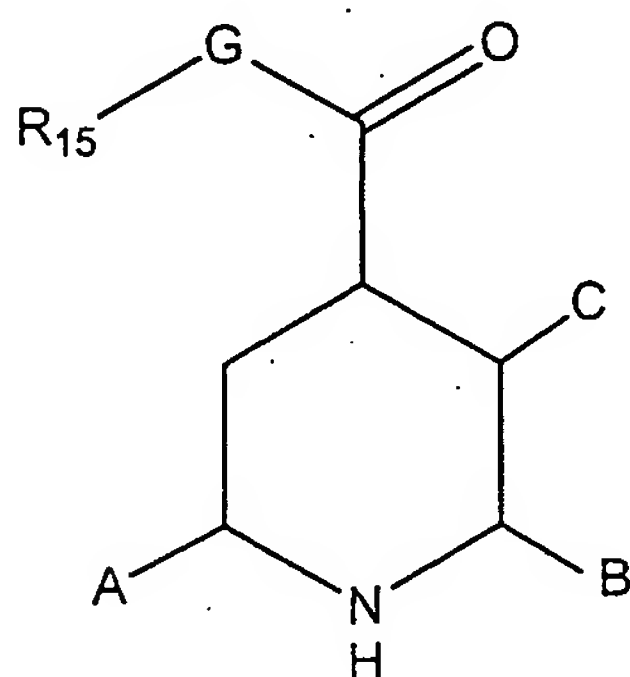
wherein A, B, C, R, R<sub>1</sub>, G and R<sub>15</sub> are as disclosed above;  
and reacting said compound of formula (III) with hydrazine, hydrates thereof, substituted hydrazine, or hydrates thereof, under conditions effective to form the compound of formula (IV):



(IV)

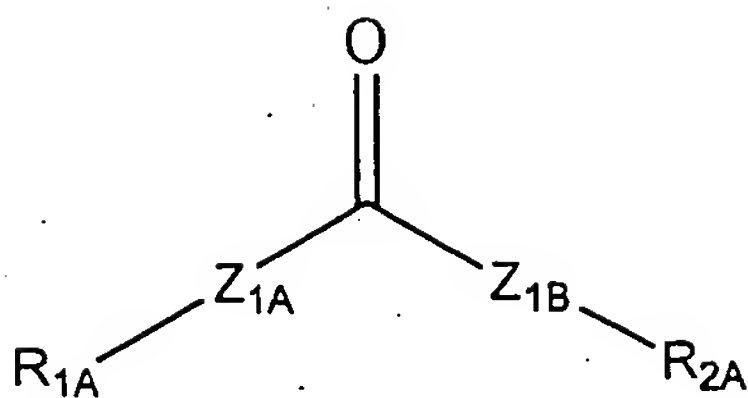
wherein A, B, C, R, R<sub>1</sub> and W are as disclosed above.

12. The process of claim 11, further comprising forming the compound of formula (II) by providing a compound of formula (I):



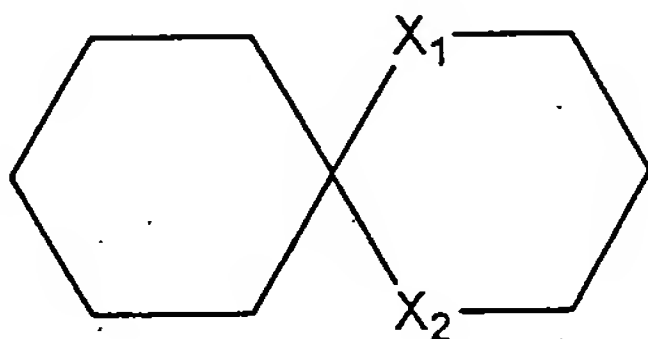
(I)

wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting the compound of formula (I) with a compound having the formula:



wherein  $Z_{1A}$  and  $Z_{1B}$  are the same or different and are independently selected from the group consisting of a bond, straight or branched  $C_{1-6}$  alkylene,  $-NH-$ ,  $-CH_2O-$ ,  $-CH_2NH-$ ,  $-CH_2N(CH_3)-$ ,  $-NHCH_2-$ ,  $-CH_2CONH-$ ,  $-NHCH_2CO-$ ,  $-CH_2CO-$ ,  $-COCH_2-$ ,  $-CH_2COCH_2-$ ,  $-CH(CH_3)-$ ,  $-CH=$ ,  $-O-$  and  $-HC=CH-$ , wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

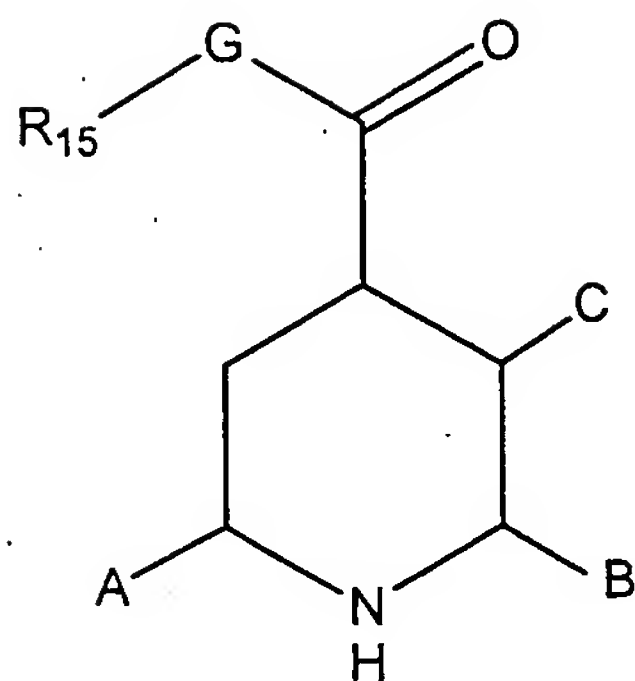
$R_{1A}$  and  $R_{2A}$  are the same or different and are independently selected from the group consisting of hydrogen,  $C_{1-10}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{2-10}$  alkenyl, amino,  $C_{1-10}$  alkylamino-,  $C_{3-12}$  cycloalkylamino-,  $-COOV_1$ ,  $-C_{1-4}COOV_1$ , cyano, cyano $C_{1-10}$  alkyl-, cyano $C_{3-10}$  cycloalkyl-,  $NH_2SO_2-$ ,  $NH_2SO_2C_{1-4}$  alkyl-,  $NH_2SOC_{1-4}$  alkyl-, aminocarbonyl-,  $C_{1-4}$  alkylaminocarbonyl-, di $C_{1-4}$  alkylaminocarbonyl-, benzyl,  $C_{3-12}$  cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a hetero-monocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (V):



(V)

wherein  $X_1$  and  $X_2$  are as disclosed above;  
under conditions effective to produce the compound of formula (II).

13. The process of claim 11, further comprising forming the compound of formula (II) by providing a compound of formula (I):



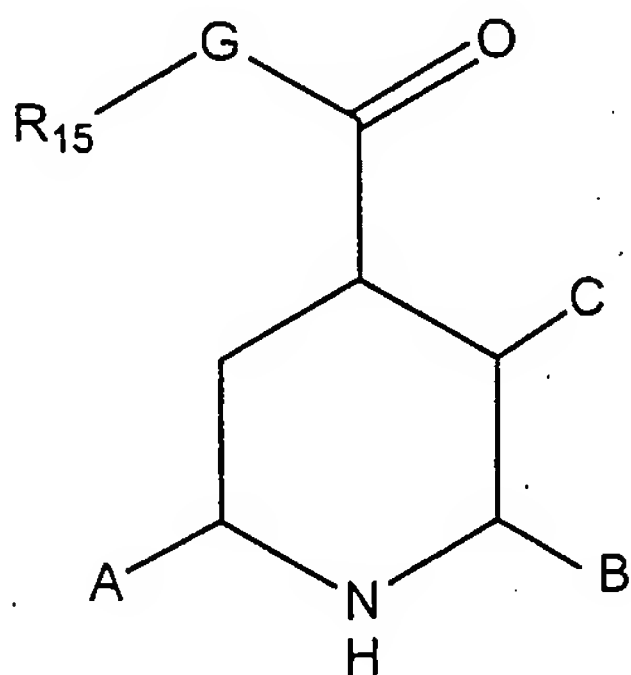
(I)

wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:



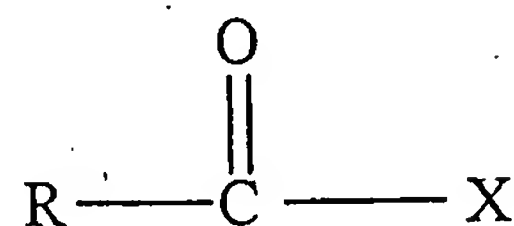
wherein R is as disclosed above and X is a halogen;  
under conditions effective to produce a compound of the formula (II).

14. The process of claim 11, further comprising forming the compound of formula (II) by providing a compound of formula (I):



(I)

wherein A, B, C, G and R<sub>15</sub> are as disclosed above; and reacting said compound of formula (I) with a compound having the formula:



wherein R is as disclosed above and X is a halogen;  
under conditions effective to produce a compound of the formula (II).

15. The process of any of claims 1-14, wherein A is hydrogen.
16. The process of any of claims 1-14, wherein B is hydrogen.
17. The process of any of claims 1-14, wherein C is hydrogen.
18. The process of any of claims 1-14, wherein A and B are hydrogen.
19. The process of any of claims 1-14, wherein A and C are hydrogen.
20. The process of any of claims 1-14, wherein B and C are hydrogen.
21. The process of any of claims 1-14, wherein A, B and C are hydrogen.
22. The process of any of claims 1-14, wherein A and B are hydrogen and C is selected from the group consisting of C<sub>1-4</sub> alkyl and hydroxyC<sub>1-4</sub>alkyl.
23. The process of any of claims 1-14, wherein A and C are hydrogen and B is selected from the group consisting of C<sub>1-4</sub> alkyl and hydroxyC<sub>1-4</sub>alkyl.
24. The process of any of claims 1-14, wherein B and C are hydrogen and A is selected from the group consisting of C<sub>1-4</sub> alkyl and hydroxyC<sub>1-4</sub>alkyl.